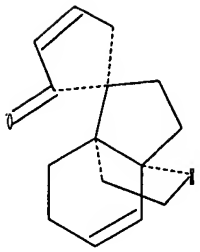
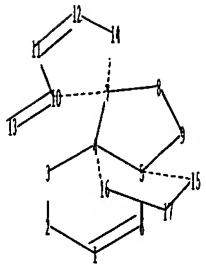


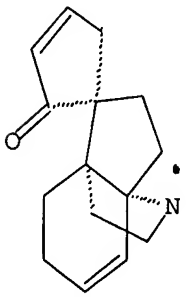


chain nodes :
13
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17
chain bonds :
10-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 4-7 4-16 5-6 5-9 5-15 7-8 7-14 7-10 8-9 10-11
11-12 12-14 15-17 16-17
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 4-7 4-16 5-6 5-9 5-15 7-8 7-14 7-10 8-9 10-13
10-11 11-12 12-14 15-17 16-17

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom

L7 STRUCTURE UPLOADED

=> d
L7 HAS NO ANSWERS
L7 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l7 full
FULL SEARCH INITIATED 20:11:18 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1251 TO ITERATE

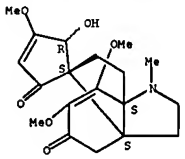
100.0% PROCESSED 1251 ITERATIONS 34 ANSWERS
SEARCH TIME: 00.00.01

L8 34 SEA SSS FUL L7

=> d l8 1-15

L8 ANSWER 1 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 873078-37-6 REGISTRY
ED Entered STN: 31 Jan 2006
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2,3-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1S,3'aS,5R,7'aS)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Dechlorodauricumine
FS STEREOSEARCH
MF C19 H25 N O6
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (+).

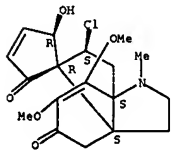


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 2 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-99-1 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-6',7'-dimethoxy-1'-methyl-, (1R,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H22 Cl N O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

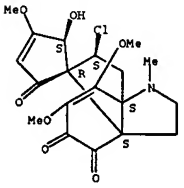


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 3 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-98-0 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,4',5'-trione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 Cl N O7
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

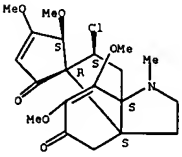


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 4 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-97-9 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,5,6',7'-tetramethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H26 Cl N O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

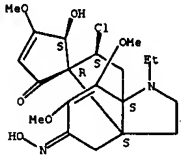


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 5 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-96-8 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-1'-ethyl-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, 5'-oxime, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H27 Cl N2 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.
Double bond geometry unknown.

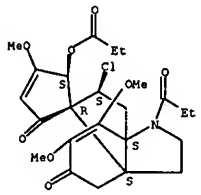


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 6 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-95-7 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-5-(1-oxopropoxy)-1'-(1-oxopropyl)-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C24 H30 Cl N O8
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

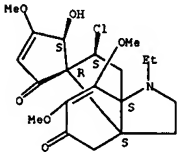


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 7 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-94-6 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-1'-ethyl-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H26 Cl N O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

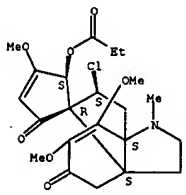


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 8 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 637770-93-5 REGISTRY
ED Entered STN: 15 Jan 2004
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-1'-methyl-5-(1-oxopropoxy)-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C22 H28 Cl N O7
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

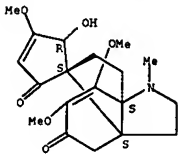


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 9 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 488736-04-5 REGISTRY
ED Entered STN: 11 Feb 2003
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1S,3'aS,5R,7'aS)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H25 N O6
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (-).

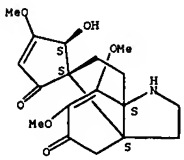


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 10 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 488736-03-4 REGISTRY
ED Entered STN: 11 Feb 2003
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1S,3'aS,5S,7'aS)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H23 N O6
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (-).

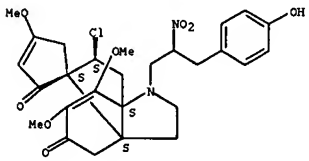


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 11 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 486429-90-7 REGISTRY
ED Entered STN: 06 Feb 2003
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-1-[3-(4-hydroxyphenyl)-2-nitropropyl]-4,6',7'-trimethoxy-, (1S,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Nitrotyrasacutuminine
FS STEREOSEARCH
MF C27 H31 Cl N2 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).
Currently available stereo shown.

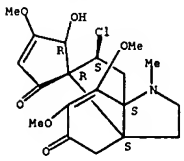


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 12 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 345641-00-1 REGISTRY
ED Entered STN: 12 Jul 2001
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1-methyl-, (1R,3'aS,5R,7'aS,9'S)- (CA INDEX NAME)
OTHER NAMES:
CN Dauricumine
FS STEREOSEARCH
MF C19 H24 Cl N O6
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (-).

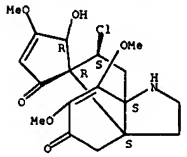


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 13 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 345640-99-5 REGISTRY
ED Entered STN: 12 Jul 2001
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Dauricumidine
FS STEREOSEARCH
MF C18 H22 Cl N O6
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (+).

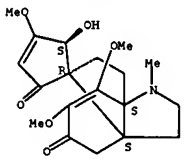


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 14 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 219794-33-9 REGISTRY
ED Entered STN: 18 Feb 1999
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Dechloroacutumine
FS STEREOSEARCH
MF C19 H25 N O6
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (-).

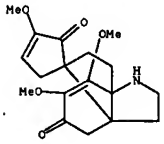


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L8 ANSWER 15 OF 34 REGISTRY COPYRIGHT 2007 ACS on STN
RN 121255-00-3 REGISTRY
ED Entered STN: 23 Jun 1989
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-3,6',7'-trimethoxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acutumine, 9-dechloro-12-demethoxy-1-demethyl-11-deoxy-13-methoxy-, (10ξ,15ξ,16ξ)-
OTHER NAMES:
CN (+)-Limalongine
CN Limalongine
MF C18 H23 N O5
SR CA
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, NAPRALERT
(*File contains numerically searchable property data)

Currently available stereo shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	201.35	385.83

FILE 'CAPLUS' ENTERED AT 20:11:54 ON 28 MAR 2007

FILE COVERS 1907 - 28 Mar 2007 VOL 146 ISS 14
FILE LAST UPDATED: 27 Mar 2007 (20070327/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l8

```
Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:CLASS  14:Atom  15:Atom  16:Atom  17:Atom

Stereo Bonds:

15-5 (Single Hash).
16-4 (Single Hash).


Stereo Chiral Centers:

4     (Parity=Odd)
5     (Parity=Odd)

Stereo RSS Sets:

Type=Relative (Default). 2 Nodes= 4 5

L10      STRUCTURE UPLOADED

=> s l10 full
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.
```

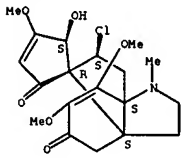
L12 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1053937 CAPLUS
DOCUMENT NUMBER: 145:460739
TITLE: Ionizing rule and characteristic spectra analysis of electrospray ionization for alkaloids in Menispermum dauricum DC
AUTHOR(S): Chen, Yong; Chen, Huaixia
CORPORATE SOURCE: Hubei Province Key Lab. of Bio-Technology of Traditional Chinese Medicine, Hubei University, Wuhan, 430062, Peop. Rep. China
SOURCE: Fenxi Huaxue (2006), 34(5), 675-678
CODEN: FHHDHT; ISSN: 0253-3820
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The MS and MS2 spectra of tetrandrine and sinomenine in pos. ion detection mode were analyzed by electrospray ionization quadrupole ion trap mass spectrometry (ESI-QITMS), and their cleavage patterns were summarized. The alkaloids extracted from the medicinal materials were also analyzed using ESI-QITMS. Tetrandrine and sinomenine were identified in the extraction by comparing the MS2 spectra of mol. ions m/z 623 and 330 with those of tetrandrine and sinomenine stds. Other known 14 ingredients were identified according to the mol. ions in MS and the characteristic product ions in MS2. Acutumine, acutumidine and acutuminine, which were three kinds of new alkaloids containing chlorine found in the leaves of Menispermum dauricum DC., were found in the extraction The characteristic print of sixteen kinds of alkaloids (one has four kinds of isomers) in the standard medicinal materials was worked in selected ion monitor mode.

IT 17088-50-5, Acutumine 18145-26-1, Acutumidine 23512-32-5, Acutuminine
RL: ANT (Analyte); ANST (Analytical study)
(anal. of alkaloids in Menispermum dauricum by electrospray ionization MS)

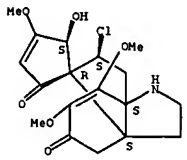
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



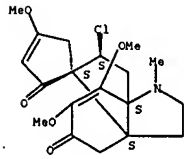
RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Absolute stereochemistry. Rotation (-).



RN 23512-32-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,7'aS,9'S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



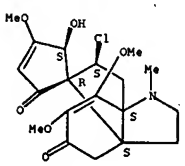
L12 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1040729 CAPLUS
DOCUMENT NUMBER: 146:54913
TITLE: Aporphine alkaloids and their reversal activity of multidrug resistance (MDR) from the stems and rhizomes of Sinomenium acutum
AUTHOR(S): Min, Yong Deuk; Choi, Sang Un; Lee, Kang Ro
CORPORATE SOURCE: Natural Products Laboratory, College of Pharmacy, Sungkyunkwan University, Suwon, 440-746, S. Korea
SOURCE: Archives of Pharmacal Research (2006), 29(8), 627-632
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Chromatog. separation of the MeOH extract from the stems and rhizomes of Sinomenium acutum led to the isolation of nine alkaloids and a lignan. Their structures were determined to be dauriporphine (1), bianfugecine (2), dauriporphinoline (3), menisporphine (4), (-)-syringaresinol (5), N-feruloyltyramine (6), acutumine (7), dauricumine (8), sinomenine (9), and magnoflorine (10) by spectroscopic means. These compds. were examined for their P-gp mediated MDR reversal activity in human cancer cells. Compound 1 showed the most potent P-gp MDR inhibition activity with an ED50 value 0.03 μg/mL and 0.00010 μg/mL in the MES-SA/DX5 and HCT15 cells, resp.

IT 17088-50-5, Acutumine 345641-00-1, Dauricumine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aporphine alkaloids from the stems and rhizomes of Sinomenium acutum and their reversal of multidrug resistance (MDR))

RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

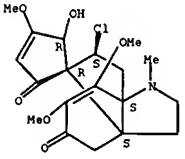
Absolute stereochemistry.



RN 345641-00-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1-methyl-, (1R,3'aS,5R,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L12 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

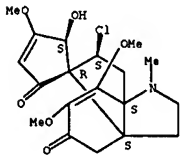
ACCESSION NUMBER: 2005:1228158 CAPLUS
DOCUMENT NUMBER: 144:103959
TITLE: Dechlorodauricumine from cultured roots of Menispermum dauricum
AUTHOR(S): Sugimoto, Yukihiro; Matsui, Miharu; Takikawa, Hirosato; Sasaki, Mitsuru; Kato, Masako
CORPORATE SOURCE: Graduate School of Science and Technology, Kobe University, Kobe, 657-8501, Japan
SOURCE: Phytochemistry (Elsevier) (2005), 66(22), 2627-2631
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Dechlorodauricumine, a possible organic substrate for biochlorination, was isolated from cultured roots of Menispermum dauricum, a rich source of chlorinated alkaloids. Its structure was established by spectroscopic and chemical methods.

IT 17088-50-5P, Acutumine 345641-00-1P, Dauricumine
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reactant or reagent)
(alkaloid from roots of Menispermum dauricum)

RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 345641-00-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1-methyl-, (1R,3'aS,5R,7'aS,9'S)- (CA INDEX NAME)

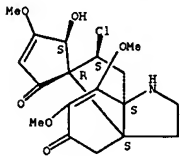
Absolute stereochemistry. Rotation (-).

L12 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

IT 18145-26-1P, Acutumidine 345640-99-5P, Dauricumidine
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(alkaloid from roots of Menispermum dauricum)

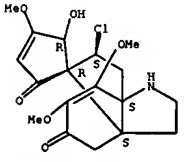
RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



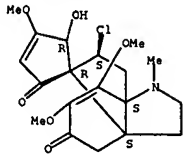
RN 345640-99-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

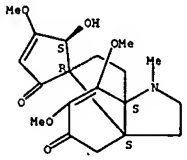
L12 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 219794-33-9P, Dechloroacutumine 873078-37-6P, Dechlorodauricumine
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(alkaloid from roots of Menispermum dauricum)

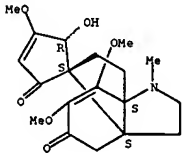
RN 219794-33-9 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 873078-37-6 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2,3-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1S,3'aS,5R,7'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L12 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

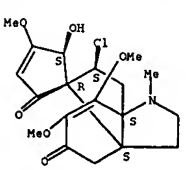
ACCESSION NUMBER: 2005:559577 CAPLUS
DOCUMENT NUMBER: 143:226001
TITLE: Morphinane Alkaloids with Cell Protective Effects from Sinomenium acutum
AUTHOR(S): Bao, Guan-Hu; Qin, Guo-Wei; Wang, Rui; Tang, Xi-Can
CORPORATE SOURCE: Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Journal of Natural Products (2005), 68(7), 1128-1130
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:226001

AB One new morphinane alkaloid, sinomenine N-oxide (1), and one new natural occurring morphinane alkaloid, N-demethylsinomenine (2), together with six known alkaloids, 7,8-didehydro-4-hydroxy-3,7-dimethoxymorphinan-6-ol (3), sinomenine (4), sinoacutine (5), N-norsinoacutine, acutumine, and acutumidine, were isolated from the stems of Sinomenium acutum. Their structures were elucidated on the basis of spectroscopic anal. and chemical methods. Compds. 2, 3, and 5 have protective effects against hydrogen peroxide-induced cell injury.

IT 17088-50-5P, Acutumine 18145-26-1P, Acutumidine
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(morphinane Alkaloids from Sinomenium acutum)

RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

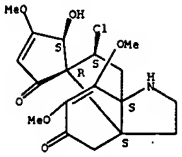
Absolute stereochemistry.



RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L12 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



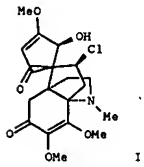
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:128007 CAPLUS
DOCUMENT NUMBER: 142:355429
TITLE: Synthesis of the Core Structure of Acutumine
AUTHOR(S): Reeder, Matthew D.; Srikanth, G. S. C.; Jones, Spencer B.; Castle, Steven L.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT, 84602, USA
SOURCE: Organic Letters (2005), 7(6), 1089-1092
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:355429
GI



I

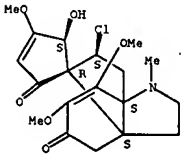
AB The tricyclic core of the bioactive natural product acutumine (I) has been synthesized. Key steps include an oxidative phenolic coupling to form a masked o-benzoquinone, an anionic oxy-Cope rearrangement to construct an all-carbon quaternary center, and a Michael-type cyclization to form an amine-bearing quaternary carbon. The target compound exists in solution as an enol, in contrast to related compds. that are ketones. A model explaining these observations is presented.

IT 17088-50-5P
RL: PNU (Preparation, unclassified); PREP (Preparation)
(synthesis of the core structure of acutumine)

RN 17088-50-5 CAPLUS

CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.

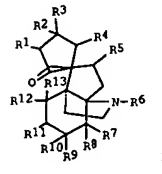


L12 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

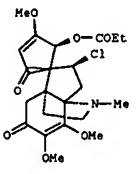
ACCESSION NUMBER: 2004:2861 CAPLUS
DOCUMENT NUMBER: 140:59819
TITLE: Preparation and formulation of acutumine and acutumine compounds for the treatment of cognitive deficiency and neurodegenerative diseases
INVENTOR(S): Qin, Guo-Wei; Tang, Xi-Can; Lestage, Pierre; Caignard, Daniel-Henri; Renard, Pierre
PATENT ASSIGNEE(S): Shanghai Institute of Materia Medica, Peop. Rep. China; Les Laboratoires Servier
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000815	A1	20031231	WO 2003-IB2600	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1465566	A	20040107	CN 2002-121479	20020625
CA 2491214	A1	20031231	CA 2003-2491214	20030616
AU 2003242278	A1	20040106	AU 2003-242278	20030616
BR 2003012444	A	20050510	BR 2003-12444	20030616
CN 1675183	A	20050928	CN 2003-819126	20030616
EP 1608625	A1	20051228	EP 2003-732907	20030616
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006501174	T	20060112	JP 2004-515147	20030616
NZ 537405	A	20060331	NZ 2003-537405	20030616
US 2006167076	A1	20060727	US 2004-519418	20041222
NO 2005000214	A	20050113	NO 2005-214	20050113
PRIORITY APPLN. INFO.:			CN 2002-121479 A	20020625
			WO 2003-IB2600 W	20030616

OTHER SOURCE(S): MARPAT 140:59819
GI



I



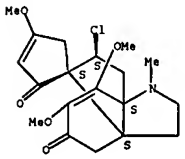
II

AB Acutumine and compds. thereof of formula I [R1, R2 = H, bond; R3 = H, alkoxy; R4 = H, OH, alkoxy, alkylcarbonyloxy, arylcarbonyloxy; R5 = H, halo; R6= H, alkyl, alkylcarbonyl, aroyl; R7, R10 = alkoxy; R8R9 = bond; R8R12 = sulfide bridge; R9R10 = oxo; R13 = H, Cl; R11 = OH, alkoxy, oxo, oxime, O-alkyl oxime; R12 = H; with provisos] are prepared The compds. can be used for the treatment of cognitive deficiencies associated with cerebral ageing and with neurodegenerative diseases. Thus, II is prepared from acutumidine, formaldehyde and propanoic anhydride. II was shown to counteract scopolamine-induced memory impairments in the Morris water maze test in mice, indicating anti-amnesic properties.

IT 23512-32-5P
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(isolation of acutumine compds. for the treatment of cognitive deficiency and neurodegenerative diseases)

RN 23512-32-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,7'aS,9'S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



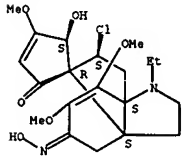
IT 637770-93-5P 637770-94-6P 637770-95-7P
637770-96-8P 637770-97-9P 637770-98-0P
637770-99-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of acutumine compds. for the treatment of cognitive deficiency
and neurodegenerative diseases)

RN 637770-93-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-1'-methyl-5-(1-oxopropoxy)-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

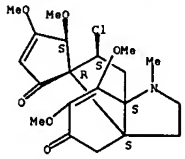
RN 637770-96-8 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-1'-ethyl-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, 5'-oxime, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



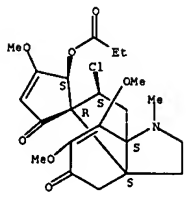
RN 637770-97-9 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,5,6',7'-tetramethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



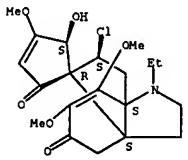
RN 637770-98-0 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,4',5'-trione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



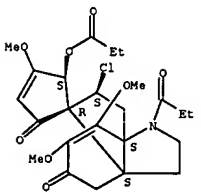
RN 637770-94-6 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-1'-ethyl-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

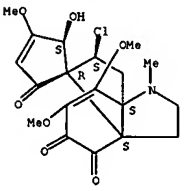
Absolute stereochemistry.



RN 637770-95-7 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-5-(1-oxopropoxy)-1'-(1-oxopropyl)-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

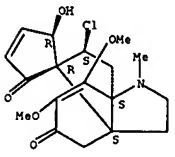
Absolute stereochemistry.





RN 637770-99-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-6',7'-dimethoxy-1'-methyl-, (1R,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)

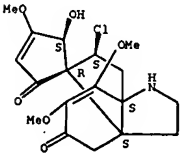
Absolute stereochemistry.



IT 18145-26-1, Acutumidine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of acutumine compds. for the treatment of cognitive deficiency
and neurodegenerative diseases)

RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

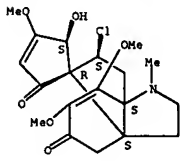
Absolute stereochemistry. Rotation (-).



L12 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

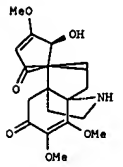
IT 17088-50-5P, Acutumine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of acutumine compds. for the treatment of cognitive deficiency
and neurodegenerative diseases)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.

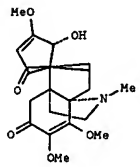


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:759661 CAPLUS
DOCUMENT NUMBER: 138:103611
TITLE: Alkaloids from Menispermum dauricum
AUTHOR(S): Yu, Bing-Wu; Chen, Jian-Yong; Wang, Yan-Ping; Cheng, Xin-Fai; Li, Xiao-Yu; Qin, Guo-Wei
CORPORATE SOURCE: Shanghai Institutes for Biological Sciences, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Phytochemistry (2002), 61(4), 439-442
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



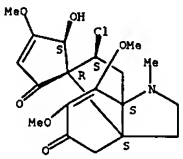
I



II

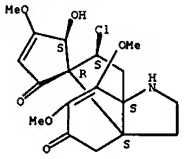
AB The alkaloids, dechloroacutumidine (I) and 1-epidechloroacutumine (II), together with three known alkaloids, acutumidine, acutumine, and dechloroacutumine, were isolated from the rhizomes of Menispermum dauricum and their structures established by spectral and chemical methods. The cytotoxicity of each compound against the growth of human cell lines was studied, and acutumine selectively inhibited T-cell growth.
IT 17088-50-5, Acutumine 18145-26-1, Acutumidine
219794-33-9, Dechloroacutumine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(alkaloids from Menispermum dauricum)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



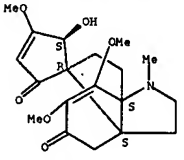
L12 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 219794-33-9 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS)-(9CI) (CA INDEX NAME)

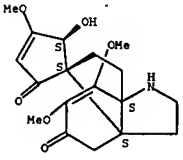
Absolute stereochemistry. Rotation (-).



IT 488736-03-4P 488736-04-5P
RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(alkaloids from Menispermum dauricum)
RN 488736-03-4 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1S,3'aS,5S,7'aS)- (9CI) (CA INDEX NAME)

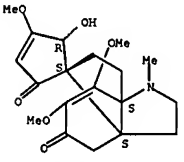
Absolute stereochemistry. Rotation (-).

L12 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 488736-04-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1S,3'aS,5R,7'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



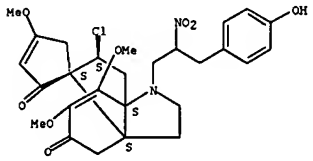
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:393345 CAPLUS
DOCUMENT NUMBER: 138:112112
TITLE: Nitrotyrasacutuminine from Menispermum dauricum
AUTHOR(S): Yu, Bing-Wu; Chen, Jian-Yong; Zhou, Tian-Xi; Cheng, Kin-Fai; Qin, Guo-Wei
CORPORATE SOURCE: Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Natural Product Letters (2002), 16(3), 155-159
CODEN: NPLEEF; ISSN: 1057-5634
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nitrotyrasacutuminine, an unusual nitrated morphine-type alkaloid was isolated from the roots of Menispermum dauricum. Its structure was determined by various 2D spectra and chemical methods.

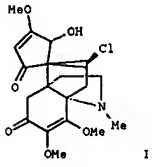
IT 486429-90-7P, Nitrotyrasacutuminine
RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(nitrotyrasacutuminine from Menispermum dauricum)
RN 486429-90-7 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-1-[3-(4-hydroxyphenyl)-2-nitropropyl]-4,6',7'-trimethoxy-, (1S,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Currently available stereo shown.

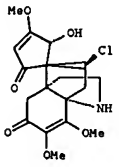


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:268660 CAPLUS
DOCUMENT NUMBER: 135:58490
TITLE: Chlorinated alkaloids in Menispermum dauricum DC. root culture
AUTHOR(S): Sugimoto, Yukihiro; Babiker, Hind A. A.; Saisho, Tomoki; Furumoto, Toshio; Inanaga, Shinobu; Kato, Masako
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680-0001, Japan
SOURCE: Journal of Organic Chemistry (2001), 66(10), 3299-3302
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



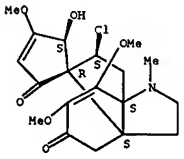
II

AB Feeding expts. using 36Cl showed that Menispermum dauricum root culture produces four alkaloids containing chlorine. They included the noval alkaloids dauricumine (I) and dauricumidine (II) as well as the known alkaloids acutumine and acutumidine. The structures of novel alkaloids were established by spectroscopic, crystallog., and chemical methods. These four alkaloids were labeled with 36Cl, isolated, and fed independently to root cultures. Mutual conversion between acutumine and acutumidine, and between dauricumine and dauricumidine by N-methylation and N-demethylation, was demonstrated. Moreover, dauricumine was converted to acutumine and acutumidine. Epimerization of acutumidine to dauricumidine or vice versa was not observed These results suggest that dauricumine is the first chlorinated alkaloid formed in cultured M. dauricum roots. Skewed distribution of radioactivity derived from labeled dauricumine is proof that epimerization at C-1 proceeds at a lower rate than N-demethylation.

IT 17088-50-5 18145-26-1
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(chlorinated alkaloids in Menispermum dauricum root culture and study in their formation)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

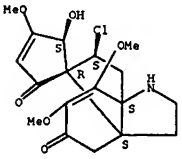
Absolute stereochemistry.

L12 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



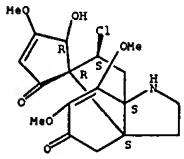
RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 345640-99-5P 345641-00-1P
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process)
(chlorinated alkaloids in Menispermum dauricum root culture and study in their formation)
RN 345640-99-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5R,7'aS,9'S)- (9CI) (CA INDEX NAME)

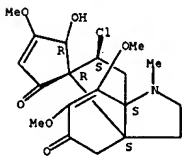
Absolute stereochemistry. Rotation (+).



L12 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 345641-00-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1-methyl-, (1R,3'aS,5R,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

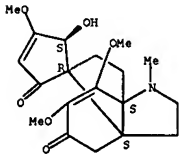
L12 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:243783 CAPLUS
DOCUMENT NUMBER: 131:29875
TITLE: Biosynthetic relationship between acutumine and dechloroacutumine in Menispermum dauricum root cultures
AUTHOR(S): Babiker, Hind A. A.; Sugimoto, Yukihiro; Saisho, Tomoki; Inanaga, Shinobu; Hashimoto, Masayuki; Isogai, Akira
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680-0001, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (1999), 63(3), 515-518
CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The biosynthetic relationship between acutumine (I) and dechloroacutumine (II) was studied by using 13C-labeled tyrosine and 3H-labeled 2 as tracers. 13C-NMR spectra of 13C-labeled I and II showed that the alkaloids, each composed of two mols. of tyrosine, are derived from the same biosynthetic pathway. Feeding Menispermum dauricum (Menispermaceae) roots, cultured in a chloride-enriched medium, with 3H-labeled II demonstrated that I is the only alkaloid metabolite of II. Conversion (5%) of the exogenously applied II, taken up by the roots, into I showed that II is the precursor of I. Incomplete conversion of II into I suggests accumulation of the exogenously applied II in cell organelles and/or compartmentation of the enzymes involved in the biosynthesis of I.

IT 219794-33-9, Dechloroacutumine
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(biosynthetic relationship between acutumine and dechloroacutumine in Menispermum dauricum root cultures)

RN 219794-33-9 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

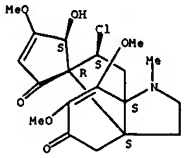


IT 17088-50-5, Acutumine
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(biosynthetic relationship between acutumine and dechloroacutumine in Menispermum dauricum root cultures)

RN 17088-50-5 CAPLUS

L12 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

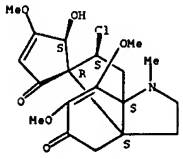
L12 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:227389 CAPLUS
DOCUMENT NUMBER: 131:4278
TITLE: Effects of chloride ion on acutumine and dechloroacutumine production by Menispermum dauricum root culture
AUTHOR(S): Babiker, H. A. A.; Sugimoto, Y.; Saisho, T.; Inanaga, S.
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680-0001, Japan
SOURCE: Phytochemistry (1999), 50(5), 775-779
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of chloride ion on the production of acutumine and dechloroacutumine, by Menispermum dauricum root culture, were studied. The chloride ion content in the medium plays a key role in the production of both alkaloids. A low chloride medium promoted production of dechloroacutumine and suppressed that of acutumine. Production of the two alkaloids during the 60 day culture period was closely associated with root biomass. Both alkaloids accumulated in the roots and a relatively small proportion was exuded into the medium. The intact plant produced very low amts. of both alkaloids. On the average, cultured roots contained 22- and 75-fold more acutumine and dechloroacutumine, resp., than intact plants.

IT 17088-50-5P, Acutumine 219794-33-9P, Dechloroacutumine
RL: BMF (Bioindustrial manufacture); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); PROC (Process)
(effects of chloride ion on acutumine and dechloroacutumine production by Menispermum dauricum root culture)

RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

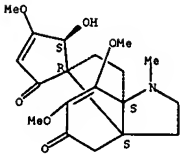
Absolute stereochemistry.



RN 219794-33-9 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

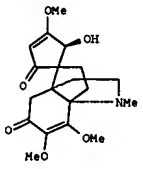
L12 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:785030 CAPLUS
DOCUMENT NUMBER: 130:122231
TITLE: Dechloroacutumine from cultured roots of Menispermum dauricum
AUTHOR(S): Sugimoto, Yukihiro; Inanaga, Shinobu; Kato, Masako; Shimizu, Toshiyuki; Hakoshima, Toshio; Isogai, Akira
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680-0001, Japan
SOURCE: Phytochemistry (1998), 49(5), 1293-1297
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

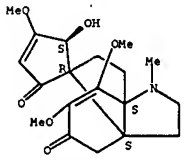
AB A novel alkaloid, dechloroacutumine (I), was isolated from Menispermum dauricum roots, a rich source of the chlorine-containing alkaloid acutumine, cultured in chlorine-deficient medium. Its structure was elucidated by spectral and crystallog. anal.

IT 219794-33-9P, Dechloroacutumine
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(dechloroacutumine from cultured roots of Menispermum dauricum)

RN 219794-33-9 CAPLUS

CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS

L12 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:279419 CAPLUS
DOCUMENT NUMBER: 127:31581
TITLE: Effect of P-450 inhibitors on benzylisoquinoline alkaloid biosynthesis in cultured roots of Stephania cepharantha and Menispermum dauricum
AUTHOR(S): Sugimoto, Yukihiro; Uchida, Shinji; Inanaga, Shinobu; Isogai, Akira
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680, Japan
SOURCE: Journal of Plant Physiology (1997), 150(4), 376-380
CODEN: JPPHEY; ISSN: 0176-1617
PUBLISHER: Fischer
DOCUMENT TYPE: Journal
LANGUAGE: English

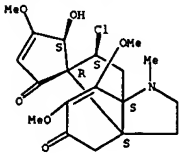
AB The effect of cytochrome P 450 inhibitors was studied on biosynthesis of benzylisoquinoline alkaloids, in cultured roots of S. cepharantha and M. dauricum. In S. cepharantha only 2 alkaloids, aromoline and berbamine, were produced. Most inhibitors reduced root growth and alkaloid biosynthesis. Aromoline and berbamine contents were pos. correlated with root growth. In M. dauricum ancymidol and metyrapone promoted root growth, ketoconazole was inhibitory, while other inhibitors had inconsistent effects. Production of the alkaloids dauricine and acutumine was curtailed by all inhibitors. Alkaloid contents were not related to root growth. None of the inhibitors induced accumulation of the immediate monomeric precursors of bis-benzylisoquinoline. Ketoconazole-treated M. dauricum roots accumulated tyramine, an early precursor of benzylisoquinoline, and 2 unidentified Tyr-derived alkaloids with mol. masses of 353 and 426.

IT 17088-50-5P, Acutumine
RL: BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(450 inhibitors effect on benzylisoquinoline alkaloid biosynthesis in cultured roots of Stephania cepharantha and Menispermum dauricum)

RN 17088-50-5 CAPLUS

CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:198363 CAPLUS
DOCUMENT NUMBER: 124:255828
TITLE: Early steps of dauricine biosynthesis in cultured roots of Menispermum dauricum.
AUTHOR(S): Sugimoto, Yukihiro; Uchida, Shinji; Inanaga, Shinobu; Kimura, Yasuo; Hashimoto, Masayuki; Isogai, Akira
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (1996), 60(3), 503-5
CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

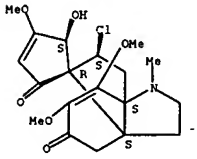
AB Cultured roots of M. dauricum, were fed with L-[U-14C]tyrosine, L-[3-13C]tyrosine, and [2-13C]tyramine independently, and the incorporation of possible early precursors into dauricine (I) was studied. I was composed of four mols. of tyrosine, and tyramine was specifically incorporated into the isoquinoline portions of I. Acutumine, into which 14C-labeled tyrosine was also incorporated, was identified as one of the main constituents in the alkaloid fraction from the roots.

IT 17088-50-5, Acutumine
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(formation in cultured roots of Menispermum dauricum)

RN 17088-50-5 CAPLUS

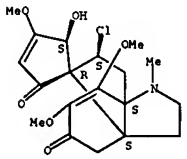
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



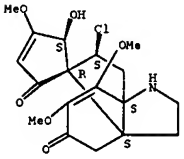
L12 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:547845 CAPLUS
DOCUMENT NUMBER: 101:147845
TITLE: Isolation of (-)-stepholidine, an alkaloid of antiserotonergic-like activity from Sinomenium acutum
AUTHOR(S): Ichikawa, Kazuo; Kinoshita, Takeshi; Itai, Akiko; Iitaka, Yoichi; Sankawa, Ushio
CORPORATE SOURCE: Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan
SOURCE: Heterocycles (1984), 22(9), 2071-7
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A tetrahydroprotoberberine alkaloid, (-)-stepholidine, was isolated as an active principle showing antiserotonergic-like activity from S. acutum (Menispermaceae) which has been used as an oriental medicinal drug (Japanese name, Bohi; Chinese name, Fang-Ji) in Japan. An aporphine type alkaloid, liriodenine, was isolated first time from this plant along with known alkaloids hitherto obtained from this plant.
IT 17088-50-5
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Sinomenium acutum)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:500745 CAPLUS
DOCUMENT NUMBER: 89:100745
TITLE: Search for inhibitors of microorganisms among the alkaloids
AUTHOR(S): Vichkanova, S. A.; Adgina, V. V.; Izosimova, S. B.; Shipulina, L. D.; Lyutikova, L. I.
CORPORATE SOURCE: Vses. Nauchno-Issled. Inst. Lek. Rast., Bittsa, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1978), 12(2), 101-7
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The inhibitory activity of >30 alkaloids against microorganisms and viruses was determined. Marked antimicrobial activity was observed with compds.
such as nuphleine-HCl [25249-43-8], lutenurine [63937-19-9], sanguinarine sulfate [22331-93-7], and chelerythrine [34316-15-9] whose active concns. against Staphylococcus aureus were 0.24-7.8 μg/mL. Most of the 30 alkaloids and alkaloid prepns. tested against viruses were active, with chelidonine sulfate [66723-59-9] and O-acetylchelidonine-HCl [66723-60-2] showing particularly marked activity.
IT 66723-62-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(virucidal activity of)
RN 66723-62-4 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, hydrochloride, [3'aS-[3'aα,7'aα,9'R*,10'S*(R*)]]- (9CI) (CA INDEX NAME)

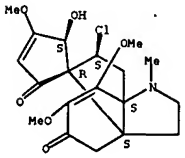
Absolute stereochemistry. Rotation (-).



● HCl

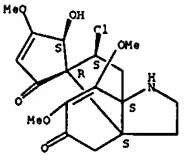
L12 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:548475 CAPLUS
DOCUMENT NUMBER: 75:148475
TITLE: Alkaloids from Menispermum canadense
AUTHOR(S): Doskotch, Raymond W.; Knapp, Joseph E.
CORPORATE SOURCE: Coll. Pharm., Ohio State Univ., Columbus, OH, USA
SOURCE: Lloydia (1971), 34(3), 292-300
CODEN: LLOYA2; ISSN: 0024-5461
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Acutimine was isolated from the aerial parts of M. canadense, while the rhizomes yielded acutumidine, dauricine, daurinoline, N'-demethyldauricine (I), magnoflorine, N-methyllindcarpine methiodide (II), and dehydrocheilanthifoline (III). The structure of the new alkaloid I was elucidated from chemical and spectral data. II and III were previously synthesized from lindcarpine and cheilanthifoline, resp., and the isolation was the 1st report of their presence in nature.
IT 17088-50-5 18145-26-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Menispermum canadense)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

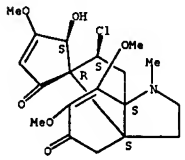
Absolute stereochemistry. Rotation (-).



L12 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:449368 CAPLUS
DOCUMENT NUMBER: 75:49368
TITLE: Alkaloids of menispermaceous plants. CCLIX. Alkaloids of Menispermum dauricum. Structures of acutumine and acutumidine, chlorine-containing alkaloids with a novel skeleton
AUTHOR(S): Tomita, Masao; Okamoto, Yasuko; Kikuchi, Tohru; Osaki, Kenji; Nishikawa, Masao; Kamiya, Kazuhide; Sasaki, Yoshio; Matoba, Katsuhide; Goto, Kakuji
CORPORATE SOURCE: Kyoto Coll. Pharm., Kyoto, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1971), 19(4), 770-91
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Structures of acutumine (I) and acutumidine (II), isolated from M. dauricum DC. and Sinomenium acutum Rehd. et Wils. (Menispermaceae), were investigated. On the basis of degradative and spectroscopic evidence, their structures including absolute stereochemistry were assigned to the structures I and II which agreed with the x-ray anal. These alkaloids represent a new class of alkaloids with a novel skeleton and also provide examples of Cl-containing alkaloids.
IT 33110-49-5P 33381-24-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 33110-49-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, hydrobromide, [3'aS-[3'aα,7'aα,9'R*,10'S*(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



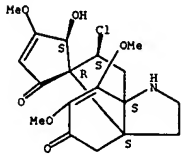
● HBr

RN 33381-24-7 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, monooxime, [3'aS-[3'aα,7'aα,9'R*,10'S*(R*)]]- (9CI) (CA INDEX NAME)

CM 1

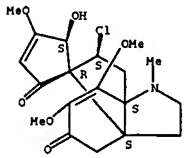
CRN 17088-50-5

L12 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L12 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CMF C19 H24 Cl N O6

Absolute stereochemistry.



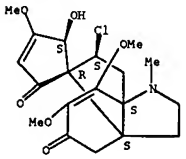
CM 2

CRN 7803-49-8
CMF H3 N O

H_2N-OH

IT 17088-50-5 18145-26-1
RL: PRP (Properties)
(structure and configuration of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.

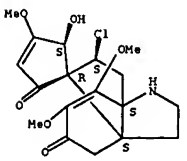


RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

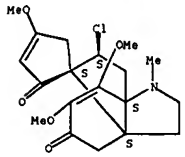
L12 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:1113 CAPLUS
DOCUMENT NUMBER: 74:1113
TITLE: Alkaloids of Menispermaceous plants. CCLVIII. Alkaloids of Menispermum dauricum. Basic components of Siberian Menispermum dahuricum (Lunosemyannik daurskii)
AUTHOR(S): Tomita, Masao; Okamoto, Yasuko; Nagai, Yoshiko; Tanaka, Shigeko; Hayata, Toshie
CORPORATE SOURCE: Kyoto Coll. Pharm., Mukogawa Women's Univ., Kyoto, Japan
SOURCE: Yakugaku Zasshi (1970), 90(9), 1182-6
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
GI For diagram(s), see printed CA Issue.
AB From the rhizome of the Russian M. dauricum, the structurally known stepharine, acutumidine, magnoflorine, and a new biscoclaurinetype base, dauricinoline (I), were newly isolated besides dauricine, sinomenine, acutumine, and menisperine already reported in literature. I occurs as a pale yellow powder and its methylation with diazomethane gives O-methyldauricine. The O,O-di-Et compound, obtained by ethylation with diazoethane, undergoes fission by metallic Na in liquid NH3 and produces D-1-(P-ethoxybenzyl)-6-ethoxy - 7-methoxy-2-methyl-1,2,3,4-tetrahydroisoquin-oline as the nonphenolic base and D-armepavine as the phenolic base. From these results, the structure of I is as shown.
IT 18145-26-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Menispermum dauricum)
RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



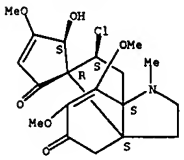
L12 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:450281 CAPLUS
DOCUMENT NUMBER: 71:50281
TITLE: Acutuminine, new alkaloid from the leaves of Menispermum dauricum
AUTHOR(S): Okamoto, Yasuko; Yuge, Etsuko; Nagai, Yoshiko; Katsuta, Rieko; Kishimoto, Atsuko; Kobayashi, Yoshiko; Kikuchi, Tohru; Tomita, Masao
CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Nishinomiya, Japan
SOURCE: Tetrahedron Letters (1969), (24), 1933-5
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Isolation from the leaves of M. dauricum gave together with sinomenine, acutumine, disinomenine and stepharine, a small amount of a new crystalline alkaloid, acutuminine (I), m. 175-7.5°, [α]D -100° (CHCl3). N.M.R., ir, uv, and mass suggested the structure for I.
IT 23512-32-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(new alkaloid from Menispermum dauricum, structure of)
RN 23512-32-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,7'aS,9'S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



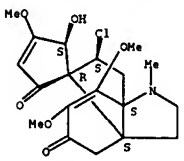
L12 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1968:431127 CAPLUS
DOCUMENT NUMBER: 69:31127
TITLE: The x-ray analyses of acutumine and its acetate; a trial of a short cut in the structure elucidation
AUTHOR(S): Nishikawa, Masao; Kamiya, Kazuhide; Tomita, Masao; Okamoto, Yasuko; Kikuchi, Tohru; Osaki, Kenji; Tomiie, Yujiro; Nitta, Isamu; Goto, K.
CORPORATE SOURCE: Res. Develop. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SOURCE: Journal of the Chemical Society [Section] B: Physical Organic (1968), (6), 652-8
CODEN: JCSPAC; ISSN: 0045-6470
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The crystal and mol. structures of acutumine, a novel type of alkaloid containing Cl, and of its acetate, have been solved by x-ray anal. by using a three-dimensional Patterson superposition method and repeated application of least sqs. and three-dimensional Fourier methods. The result agreed with the chemical evidence obtained by concurrent degradative studies. The structure of acutumine is closely related to that of hasubanonine which was isolated from a species of the same plant family, but has a spirantype juncture of the five-membered rings A and B, with a Cl atom attached to the latter. The usefulness of applying the least-sqs. method at an unusually early stage for distinguishing real atoms from the spurious peaks appearing in the maps of min. functions or of Fourier synthesis was clearly demonstrated. In particular, observation of the behavior of temperature factors through several cycles of least-sqs. with fixed atomic coordinates was found to provide a rapid method.
IT 17088-50-5
RL: PRP (Properties)
(structure of, calcn. of, short method for)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1968:87430 CAPLUS
DOCUMENT NUMBER: 68:87430
TITLE: Structures of acutumine and acutumidine
AUTHOR(S): Goto, Kakuji; Tomita, Masao; Okamoto, Yasuko; Kikuchi, Tohru; Osaki, Kenji; Nishikawa, Masao; Kamiya, Kazuhide; Sasaki, Yoshio; Matoba, Katsuhide
SOURCE: Proceedings of the Japan Academy (1967), 43(6), 499-504
CODEN: PJACAW; ISSN: 0021-4280
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The structures of acutumidine (I), m. 239-41° (decomposition), pKa 6.6 (50% EtOH), and [α]D -212° (pyridine), and acutumine (II), isolated from Sinomenium acutum or Menispermum dauricum, were established. The reduction of II acetate with LiAlH4 gave a demethoxy dihydroxy ketone (III), m. 136-7°. Treating II with Zn in boiling Ac2O gave a mixture of IV (R1 = R4 = Ac, R2 = H, R3 = MeO) (IVa) and IV (R1 = R4 = Ac, R2 = Cl, R3 = H) (IVb). IVa was hydrolyzed, giving a phenolic compound, which was methylated with CH2N2, giving IV (R1 = R2 = H, R3 = MeO, R4 = Me) (IVc). IVc was treated with Ac2O in pyridine, giving IV (R1 = Ac, R2 = H, R3 = MeO, R4 = Me), and also oxidized with MnO2, giving the ene-dione compound (V), m. 154-6°. The KMnO4 oxidation of IVc gave a product, m. 75-7°, which was identified as 4,5,6-trimethoxy-1-indanone. Mild saponification of IVb, followed by methylation, gave IV (R1 = R3 = H, R2 = Cl, R4 = Me), m. 219-21.5° (decomposition), which gave, on LiAlH4 reduction followed by KMnO4 oxidation, a compound m. 92-6°, which was thought to be 4,6-dimethoxy-1-indanone. The reduction of II with Zn-AcOH gave a dihydro compound, m. 168-71°.
IT 17088-50-5 18145-26-1
RL: PRP (Properties)
(structure of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

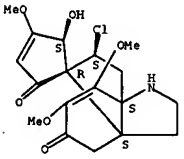
Absolute stereochemistry.



RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

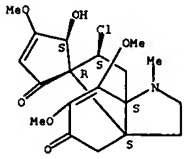
L12 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L12 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:517002 CAPLUS
DOCUMENT NUMBER: 67:117002
TITLE: Acutumine and acutumidine, chlorine-containing alkaloids with a novel skeleton. II. Chemical proof
AUTHOR(S): Tomita, Masao; Okamoto, Yasuko; Kikuchi, Tohru; Osaki, Kenji; Nishikawa, M.; Kamiya, Kazuhide; Sasaki, Yukio; Matoba, Katsuhide; Goto, Kakuji
CORPORATE SOURCE: Kyoto Univ., Kyoto, Japan
SOURCE: Tetrahedron Letters (1967), (25), 2425-30
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB cf. preceding abstract Based on previously reported exptl. evidence [CA 67: 54324k] and addnl. findings, 3 partial revised structures for acutumine are proposed (I, II, II). Acutumine (IV, R = Me, R' = H) (V) has a tetrasubstituted 6-membered α,β-unsatd. ketone system carrying one or two MeO groups at the α,β positions. Acutumine acetate IV (R = Me, R' = Ac) (VI) over PtO2 gave a dihydro compound The N.M.R. spectrum of N,O-dibenzoylacutumidine showed a spectra consistent with the structure I. V has a secondary allyl alc. system. Treatment of VI with NaBH4 gave a hydroxy compound (VII), showing a pos. Cotton effect at 304 mμ. The ir absorption at 1690 cm.-1 and the uv band at 245 mμ in various acutumine derivs. were accordingly ascribed to a hindered five-membered conjugated ketone system. Reduction of VI with LiAlH4 gave a dimethoxy-dihydroxy ketone (VIII), m. 136-7°, showing a pos. Cotton effect. Oxidation of V with MnO2 gave a dehydro product (IX), ν 1745, 1695 cm.-1, indicative of a 5-membered ene-dione system. The above evidence supported the partial structure II. The partial structure III followed mainly from N.M.R. spectral evidence. Treatment of V with Zn in boiling Ac2O gave a mixture containing a neutral fraction consisting of 2 aromatic N-free products, mainly (X, R1 = R2 = Ac) (XI), which hydrolyzed gently to give a phenolic compound which methylated with CH2N2 to an O-methyl ether X (R1 = Me, R2 = H) (XII), and acetylated with Ac2O-C5H5N to the acetate X (R1 = Me, R2 = Ac) (XIII). The N.M.R. spectra of XI, XII, XIII indicated that the partial structure II proposed for V might remain unchanged in these products. MnO2 oxidation of XII gave an ene-dione (XIV), m. 154-6°. XII oxidized with KMnO4 gave a product, m. 75-7°, identified as 4,5,6-trimethoxy-1-indanone. The minor degradation product (XV, R1 = R2 = Ac) saponified and methylated gave an O-methyl ether XV (R1 = Me, R2 = H), m. 219.0-21.5° (decomposition), which reduced with LiAlH4 and consequently oxidized with KMnO4 to yield a small amount of crystalline 4,6-dimethoxy-1-indanone. The structure of V was accordingly expanded to the partial structure (XVI) and the remaining moiety (C3H7N) was considered to form a -CH2CH2NMe- grouping based on N.M.R. study. Reduction of V with Zn-AcOH gave a dihydro compound (XVII), m. 168-71°. Acetylation expts. suggested that XVII is most likely a carbinolamine, formed by cyclization of the normal reduction product (XVIII).
The circular dichroism curves of V and acutumidine IV (R = R1 = H) have a neg. Cotton effect near 320 mμ, attributed to the n → π* transition of a 6-membered α,β-unsatd. ketone system, comparable to the Cotton effect of hasubanonine (XIX) with the same structural feature of established configuration, thus establishing the structures of acutumine and acutumidine as indicated (XX, R = Me, and R = H), in accordance with structures previously obtained from x-ray analysis.
IT 17088-50-5 18145-26-1
RL: PRP (Properties)

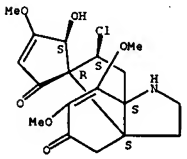
L12 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
(structure of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



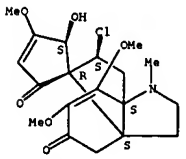
RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L12 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:517001 CAPLUS
DOCUMENT NUMBER: 67:117001
TITLE: Acutumine and acutumidine, chlorine-containing alkaloids with a novel skeleton. I. X-ray analysis of acutumine
AUTHOR(S): Tomita, Masao; Okamoto, Yasuko; Kikuchi, Tohru; Osaki, Kenji; Nishikawa, M.; Kamiya, Kazuhide; Sasaki, Yukio; Matoba, Katsuhide; Goto, Kakuji
CORPORATE SOURCE: Kyoto Univ., Kyoto, Japan
SOURCE: Tetrahedron Letters (1967), (25), 2421-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Isolation from Sinomenium acutum and Menispermum dauricum gave the minor alkaloid acutumine (I), m. 238-40° (decomposition), [α]D -206° (C5H5N), and the N-nor base, acutumidine (II). N-Methylation of II, m. 239-41° (decomposition), [α]D -212° (C5H5N), showing close similarity to I in spectral properties, gave I. A 3-dimensional sharpened Patterson function was calculated from 1459 independent data and from 14 tentative atomic positions; alternating applications of the least sqs. method and Fourier synthesis revealed the structure of I as shown (or its mirror image). Of the 14 atomic positions assumed at first, 4 were inadequate. Observed and calculated intensities of 29 pairs of reflections in the 1st and 2nd layers of Weissenberg photographs were compared from which the absolute configuration of the mol. was determined
IT 17088-50-5 18145-26-1
RL: PRP (Properties)
(structure of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

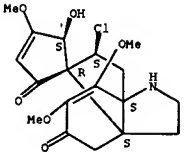
Absolute stereochemistry.



RN 18145-26-1 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-, (1R,3'aS,5S,7'aS,9'S)- (9CI) (CA INDEX NAME)

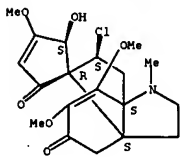
Absolute stereochemistry. Rotation (-).

L12 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



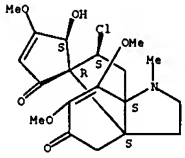
L12 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:505042 CAPLUS
DOCUMENT NUMBER: 67:105042
TITLE: A region of biosynthesis
AUTHOR(S): Barton, Derek H. R.
SOURCE: Chemistry in Britain (1967), 3(8), 330-7
CODEN: CHMBAY; ISSN: 0009-3106
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The developing interest in the biosynthesis of organic compds. is discussed, particularly in terms of reagent variation and its effect on specifically designed phenolic mols. The derivation of the structure of acutumine from phenolic coupling followed by further degradation is reviewed. Work previously described on the biosynthesis of sinomenine and Erythrina alkaloids (CA 67: 32851c) is also discussed. 38 references.
IT 17088-50-5
RL: PRP (Properties)
(structure of, determination of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



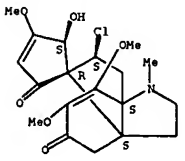
L12 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:454324 CAPLUS
DOCUMENT NUMBER: 67:54324
TITLE: Characterization of acutumine
AUTHOR(S): Goto, Kakuji; Tomita, Masao; Okamoto, Yasuko; Sasaki, Yoshio; Matoba, Katsuhide
SOURCE: Proceedings of the Japan Academy (1966), 42(10), 1181-4
CODEN: PJACAW; ISSN: 0021-4280
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A revised mol. formula, C19H24NO6Cl, is presented for acutumine (I), [pKa 5.3, m. 238-40°, [α]15D -206° (c 0.69, C5H5N)]. The presence of Cl in I was proved by mass spectra and combustion data; however, attempts to remove it by Ag2O, LiAlH4, or catalytic hydrogenolysis were unsuccessful. Acetylation with Ac2O-C6H5N gave a monoacetylated acutumine (II), m. 162-4°. Oxidation of I with MnO2 gave oily dehydroacutumine with formation of a new carbonyl group and the disappearance of the >CHOH proton group. I afforded a monooxime, m. 213°, which no longer shows ir absorption at 1670 cm.-1, indicative of one carbonyl group in I. Reduction of II with NaBH4 gave three products, A, B, and C. A is shown by ir to have acetoxyl and hydroxyl groups, and to lack the carbonyl group. Oxidation of A with MnO2 gave II. Acetylation of A with Ac2O-C5H5N afforded a diacetate, m. 149-52°. The products B and C show the absence of both the acetoxy and the carbonyl band at 1670 cm.-1 in the ir. Hydrogenation of II over PtO2 in MeOH gave dihydroacutumine acetate, m. 230-1°. Treatment of II with LiAlH4 resulted in demethoxylation and reduction of the carbonyl group to give a product m. 136-7°. Acetylation of this product with Ac2O-C6H5N gave a diacetate, m. 138-42°. Oxidation of the reduction product with MnO2 gave a dehydro product, m. 166-9°. Reaction of I with Pb(OAc)4 gave, as a major product, a CHO-containing compound
IT 17088-50-5
RL: PRP (Properties)
(properties of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1961:100140 CAPLUS
DOCUMENT NUMBER: 55:100140
ORIGINAL REFERENCE NO.: 55:18893d-e
TITLE: Alkaloids of Menisperum dahuricum
AUTHOR(S): Il'inskaya, T. A.
SOURCE: Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. Lekarstv. i Aromat. Rast. (1959), (No. 11), 51-64
From: Referat. Zhur. Khim., Biol. Khim. 1961, Abstr. No. 6S638.
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Two alkaloids were isolated from M. dahuricum: sinomenine, C19H23O4N m. 161-2° (EtOAc) and 180-1° (EtOH) [α]20D -78.9° (EtOH); and acutumine, C20H27O8N m. 240-1° (EtOH Et acetate 1:1) [α]20D -120 (pyridine). Sinomenine was isolated from the total alkaloids by Et acetate recrystn. The root of the plant contained more alkaloids than any other part. All parts contained a maximum of alkaloids during bud formation and blooming.
IT 17088-50-5, Acutumine
(from Menisperum dauricum)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1930:7549 CAPLUS
DOCUMENT NUMBER: 24:7549
ORIGINAL REFERENCE NO.: 24:854e-f
TITLE: Sinomenine and disinomenine. IX. Acutumine and sinactine
AUTHOR(S): Goto, Kakuji; Sudzuki, Hideo
SOURCE: Bulletin of the Chemical Society of Japan (1929), 4, 220-4
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C. A. 24, 122. Acutumine and sinactine are 2 alkaloids recently isolated from the root of Sinomenium acutum Rehd et Wills. Acutumine has the mol. formula C20H27NO8 or C21H27NO8. Its absorption spectrum resembles that of narceine. It m. 199-200°. Its HCl salt shows [α]D60.20°. The mol. contains 3OMe, 1CO, 1CO2H, 1NMe and no phenolic OH groups. Sinactine m. 174°, its HCl salt decomps. at 272°, its Au double salt is amorphous; its Pt double salt, m. 245-7°. In CHCl3, [α]D = -312°. The mol. formula is C19H21NO4, with 2OMe, 1 methylenedioxy, no NMe and no phenolic OH groups. The absorption spectrum almost coincides with that of laudanosine.
IT 17088-50-5P, Acutumine
RL: PREP (Preparation)
(preparation of)
RN 17088-50-5 CAPLUS
CN Spiro[3-cyclopentene-1,10'-[3a,7a]propano[1H]indole]-2,5'(4'H)-dione, 9'-chloro-2',3'-dihydro-5-hydroxy-4,6',7'-trimethoxy-1'-methyl-, (1R,3'aS,5S,7'aS,9'S)- (CA INDEX NAME)

Absolute stereochemistry.